JOURNEY TO THE SUMMIT OF GUNONG BUBU.

Gunong Bubu is the most elevated mountain of the coast range of the State of Pérak. Its highest summit lies about S. 17° E. of Thaipeng, distant, say, twenty miles as the crow flies. It is one of the series of nearly detached groups of mountains which form the coast-range, having their spurs and longest axes generally in a N.N.E. and S.S.W. direction. There is no record of any exploration of Gunong Bubu. It is said that some Europeans have ascended it and made a collection of plants, but what the Reverend Mr. SCORTECHINI and I saw of the flora, inclines us to think that some of the adjacent and lower summits could only have been reached. The mountain is not quite 5,600 feet high, but rendered very inaccessible by precipices of granite 1,000 feet high, which bar most of the spurs. At the request of Sir HUGH Low, I undertook its exploration, accompanied by the Revd. B. SCOR-TECHINI as botanist, and Mr. C. F. BOZZOLO, who had charge of the Malays carrying our baggage. We started from the mountain garden at Arang Para, which is about 3,000 feet above sea level-not a good point of departure, as we had to descend and then climb up again over several very steep spurs before we could reach even the foot of the range. The following is the journal.

May 20, 1884.—Started from the mountain garden at 9 A.M. on a course due south, descending a very steep slope along a mountain track used by Chinese sawyers. It soon began to rain heavily, which made the steep path so slippery that

progress was exceedingly slow. We at last reached the bottom of a narrow gorge, through which a mountain torrent came down with considerable force. From this point to the summit of Gauong Bubu, our road had to be cut through the jungle. After wading along the stream to find a convenient point for climbing the next spur or ridge, we crossed it, having difficult and slow climbing both in ascending and descending. The forest was a close jungle of rattans and saplings, with an undergroth of ferns which completely closed us in above and around. A second spur, still higher than the first, was ascended, but on its ridge we found the jungle in a slight degree more open, so we continued along it. It ascended slowly. In about two miles, finding that it was taking us too much out of our course, we left the ridge and crossed another spur which was very steep, rendering it necessary to proceed by a series of long zigzags. Rested in the furthest valley, and then mounted another ridge higher and steeper than any we had previously climbed. On the edge, we found an old rhinoceros beat, which we followed, ascending for about a mile, where it terminated on the summit of an almost precipitous bluff. The rain was so heavy at this point, that we had to wait till it ceased before we could descend. This was no easy matter, and occupied until nearly sunset in bringing down our baggage. In the valley, we found a branch of the Kenas River making a pretty cascade over large granite boulders. Here we built nice little sheds which the large-leaved Pinanga palm enabled us to thatch comfortably.

May 21.—We left our encampment about 7.30, following the stream until it joined the Kenas River. Near this we found a species of *Helicio*, which is the second proteaceous plant we have noticed in Pérak. We also found a splendid species of *Fagraa*, probably *P. auriculata*, with large fragrant cream-coloured flowers nearly a foot across the rotate corolla, the tube of which is eight inches long.

The Kenas River is about one hundred feet wide, descending in rapids amid large granite boulders. It contains many deep water-holes with fishes, different somewhat from those on the Pêrak. They are under examination, with a view to specific description. There are also land crabs about the stream and a peculiar species of prawn (*Palamou*?).

From the Kenas, we struck to the west of south crossing two small, steep, densely-wooded spurs. This brought us to the base of a steep slope, which was at the foot of Gunong Bubu. Here the jungle became more open, being mostly composed of forest trees and Bertam palm (Engeissonia tristis). We soon lost sight of the Pinanga which we had found on the Kenas. There was a distinct rhinoceros beat on the crest, covered with foot-prints, which had been made only a few hours before. The logs which lay in the way were smoothed by the constant passing and repassing of these animals. There were also many of these water-holes and it was difficult to imagine that they had not been cut artificially on one side. The jungle was easily cut, but the track was so steep as scarcely to afford a footing in places. It took us nearly the whole day to climb a distance of 5,000 yards, and then we camped on a narrow terrace near a small trickling supply of water. Near this camp, we could hear the roaring of a large cascade, probably not far off, but the descent to it was too steep for us to attempt to reach it then. Our huts were built of attap and were large and comfortable. We had descended so much from our starting point that we were still below the level of the Hermitage garden of Arang Para.

May 22.—Before starting this morning we sent back a party of Malays to bring up fresh supplies to this camp for our

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return journey. We got away about 8 A.M. It is very difficult to make an early move from these camps. What with cooking rice for the day and packing up the baggage, a good part of the morning runs away. Our journey was just like that of yesterday, only a little more steep in places. About 1,000 feet above camp we left the region of Bertam, or attap palms, and came into that of Licuala, growing amid high forest trees. Up to this time, we could not get a single view of the country around us. When we had ascended to the level of Arang Para we felled a number of trees in the hope of extending the prospect, but were unsuccessful. The ascent was now only very steep in places, and the spur curved much more to the north. When we reached the height of nearly 4,000 feet above the sea, we camped and built our houses. When this was done, we felled a good deal of timber on the northern slope of the spur and soon opened up an extensive view. Arang Para bungalow bore about E.N.E., but none of the Larut side of the range was visible, owing to the spurs of Mount Bubu. We had an abundance of water close to our camp. A small stream fell over about one hundred feet of rocks at a short distance below the terrace we were upon.

Next day, the 23rd, we left all the baggage at our resting place, and proceeded to make a trial trip to reach the summit. We could get no reliable information from the Malays. Some said it was only two hours' journey, while others insisted that it would take the whole day. Our intention was to climb for half a day, and, if the difficulties were great, to move our camp on another stage. Our great delay, of course, was in cutting down the jungle and not being able to see more than a few yards around us. However, we were agreeably surprised to find a comparatively easy, though steep, ascent for about a mile. After this, we had to climb by roots of trees, stumps and branches, and made but slow progress. I cannot say now whether this portion of our journey was on the face of a cliff or not. We could see absolutely nothing around us but trees and roots, and these overhung with such a thick coating of brown moss, ferns and orchids, that above and below were equally hidden. Sometimes we crept in and out under these roots and over them, or climbed a tree to get to some ledge near its upper branches, but where we were going, or how far we were, could only be guessed from the barometer. I do not suppose, however, that any one could climb so steep an ascent with less danger. One could not fall. It would puzzle any person to throw a stone more than a few yards amid such a thicket.

At five thousand feet by the aneroid, we began to see the first specimens of that graceful fern Matonia pectinata. This has never been previously recorded from Pêrak, and the only habitats are Java and Mount Ophir near Malacca, where it is associated with Dipteris Horsfeldii. The latter fern we had seen 1,000 feet below, and it occurs on all the mountains of Perak at heights a little over 3,500 feet but at Singapore it is found at the sea level. Besides this, there was plenty to see and admire in the way of ferns, orchids and mosses, with many curious fungi and lichens, for the moisture and deep shade made the place the very home of the cryptogamia. But the climbing was such very hard work, that attention to anything else was almost impossible. At about 5,400 feet, the entire vegetation changed. It was still a thicket, but more or less stunted and twiggy, very distressing to climb. I cannot say how long it continued, but long before I expected it, we suddenly found ourselves on an open level space, on the summit of Mount Bubu.

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This, however, is not the highest point. The crest of the mountain is a narrow ridge about half a mile long, gradually sloping up to the northward until it is about 100 feet above where we then were. This might be called the lower shoulder of the ridge or crest. A splendid view was obtainable threequarters round the compass, but the north was hidden by the higher summit.

The first thing that attracted our attention was the vegetation. The trees were all low and small, stunted and gnarled by the weather. Beneath there was a thick carpet of moss, into which the foot sunk some inches and when withdrawn left a pool of water on the foot-print. Above this was a most luxuriant growth of heather (Lycopodium nutans), while Matonia pectimata spread out its fan-like fronds on every side. The sides of the trees were hoary with long-bearded lichens (Usnea burbata) and mosses. There were only a few species of trees. One very common one was a conifer, but in the absence of any cones we were left in doubt whether it was Dacrudium elatum or some other species. Abundance of young plants of this pine covered the ground. There were also thickets of Leptospermum flavescens, which grew as high as the pine, and a shrub of the genus Leucopogen. The two latter are entirely Australian on their affinities, and both species are found on that continent. Besides these, there were abundance of Nepenthes or pitcher-plants with bushes of Rhododendrons (R. verticillatum ?), with a Gahnia and some few other flowering plants and ferns.

From this point, a hasty exploration was made to the highest point or northern summit of the mountain. Though scarcely half a mile in direct distance, it required considerably over a mile of hard climbing to reach it. The roots of the bushes have proved a kind of upper platform on the crest and

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thus one has to climb over and under in a most disgraceful manner, as the whole was an entangled mass of twigs which stopped and caught one at every side, besides being dripping with water. By the time the highest crest was reached, the clouds had gathered, and no view could be obtained. Having satisfied ourselves about the road, and cleared the most of it, we turned back. Though the descent was slower and more troublesome than going up, yet we reached our camp easily an hour before sunset. Our supplies had not arrived, and our chances of making a second ascent seemed rather uncertain. Our last rations of rice were served out that evening. On the next day (Queen's birthday, hence the camp was called Queen's Camp) we cleared away much more of the forest, but as the party were without food, and there were no signs of our messengers, we prepared, with much chagrin, to return to our lower camp. We hal just packed everything when the supplies arrived. Our messengers had lost themselves in the jungle and this was the cause of the delay.

On the 27th, taking with us a light equipment for camping, we again ascended the summit of the mountain. After erecting our tents, or rather our waterproof sheets which served as a substitute, we went on to the summit and built an immense heap of wood and dammar resin to serve as a signal fire at night. Beyond the summit there is a steep valley and at the other side are isolated pinnacle of granite nearly as high as the mountain and perfectly precipitous except on the side of the valley. Messrs. Scortechini and Bozzolo ascended this with much hard climbing and found on the summit a small pile of stones and a flag-staff, while the remains of a flag were strewn on the ground. It is supposed that this flag was placed there at the instance of Captain SPEEDY, who paid the Malays a considerable sum to plant a flag there for surveying purposes. We found no other signs that any person had visited the locality before.

A perfect deluge of rain with thunder and lightning obliged Messrs. Bozzolo and Scortechini to remain on the granite pinnacle for some time, for the cloud and mist obscured everything and rendered it impossible to descend. I remained on the opposite summit superintending the erection of the bonfire. It was miserably cold, and we were all very glad when we could make our way back to our tents. This we did not do until the clouds cleared, when a magnificent view was unveiled. Both sides of the coast range were visible and the plains from the Dinding River to the town of Thaipeng were laid out like a panorama. The Matang opening with the village seemed just beneath us. The whole valley of the Pêrak with all the windings of the river were clear and distinct for a distance of fifty or sixty miles. The main range was also very clear and some of the highest peak bore a different aspect from anything I had seen before. An island between Pêrak and Sumatra, which is rarely seen from Mount Ijau, was now plainly visible, as also several summits of mountains to the south-east. Nothing could be seen of the mountain observed by Mr. SWETTENHAM from Arang Para. The highest summit visible to us was, in my opinion, the sugar-loaf hill to the north and east of Gunong Robinson. I should think the mountain I refer to is between eight thousand and nine thousand feet high.

Altogether, the view from the summit of Gunong Bubu is one of the finest imaginable. Rivers and mountains, dense forests and open plains, the distant sea and the unexplored forests to the eastward all combine to form a scene of wonderfully varied beauty. Unfortunately, however, the clouds and mists almost continually obscure this prospect. At early morning and after a heavy thunderstorm, the whole atmosphere is

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comparatively clear. At other times, there is generally either a cap of cloud on the summit of the mountain itself or the whole valleys are shrouded with dazzling masses of steam-like white vapour in which the mountain tops peep out like islands.

We returned to our camp about sunset, and then proceeded to light our signal fires. We had one on each end of the crest so as to be well seen from the valley of the Pêrak on one side and Thaipeng on the other. Owing to the good supply of dammar we had obtained, we were able to kindle a very bright and conspicuous flame at each station and we were answered by fires from Sengang, Kwala Kangsa, and other places on the Pêrak river as well as from Kota and Matang on the Lârut side. We also fired rockets, but these were not seen except in places very close to the mountain.

Our tents were completely open on one side, but the cold was not great until nearly dawn. The temperature then went down to 58° Fahrenheit, which was the lowest reached on this journey. At 4 A.M. we were visited by heavy rain and a strong wind from the east. Our shelter did not protect us from either, so that we passed the time rather uncomfortably until sunrise, when the rain ceased. Everything was then so wet that we could not attempt to dry our clothes, we therefore returned to Queen's Camp as speedily as we could. Having taken a hasty and scanty meal there, we made our way to our second day's camp reaching it easily at sunset. We expected to meet supplies at this camp, but they had not arrived. We had nothing but cocoa to serve out to our weary and hungry Malays after their long journey, but with this they were satisfied and went to rest quite cheerfully. An early start on the following morning enabled us to reach the Kenas River at an appointed depôt, and here we found the much-needed supplies at about noon.

I have already mentioned that, at the camp of the preceding evening, we could again distinctly hear the roar of some large cascade at about half a mile from where we were. We tried to search it, but the jungle was too thick and the descent too steep to do so that night, our want of provisions obliged us to push on without further delay in the evening. From the noise we heard, there must be a fine body of water, falling from a considerable height.

The camp we were now upon was not one we had occupied on our outward journey. It was on the River Kenas. The stream was here about eighty yards wide and descending in rapids amid large rocks. There were many deep pools of beautifully clear water. We spent a few days fishing on these pools, and caught a good many rock-fish and mullet about one pound in weight. Three species of fish were seen and a peculiar prawn. I believe the fish were species of *Barbus* therapon, and what I thought was *Polyacanthus cuponus*. The latter is the scaly fish (without barbels) which is found in the ditches and paddy fields.

In returning from the camp, we crossed the watershed between the Kenas and Kangsa, in order to explore the course of that river, which was not previously known. The watershed was somewhat difficult of access, and took us to a height of about three thousand feet above the sea-level. We had the misfortune to meet with bad weather and incessant rain during this part of the journey. The river Kangsa, even in its upper portions, was swollen into a fierce muddy stream, quite impassable, except on fallen trees. Of these there were many lying from bank to bank on the rocky sides of the torrent. We soon found that the water descended in a series of cascades for a depth of about 1,100 feet. I can give no idea of the grand magnificence of the scenery at this part of our jour-

ney. Whether there was a flood in the river or not, the beauty of the rocks and precipices in the wild forest could not be surpassed. We had to descend by a series of zigzags crossing the successive cascades on logs sometimes at a considerable height above the water. If ever the romance of a lovely view was destroyed by the perils of a journey, it was here. We had to cross fifteen of these aerial bridges. Some were narrow and some were half rotten, and all were over cascades where the slightest slip was certain destruction. In the lower part of the stream we had to ford the water, which was just fordable and no more. I consider that it was quite wonderful that this part of our journey was accomplished without accident, which, however, was only effected by constant care and much delay. We arrived at Lady WELD's rest-house on the Kuala Kangsa Road on the evening of the last day of the month the most of which had been spent in the jungle, and none the worse for our sojourn away from civilization, except in the innumerable leech-bites from which we all suffered.

J. E. TENISON-WOODS.

Note.—Amongst the fishes of the Kenas there was a small specimen of what I took to be *Ophiocephalus micropeltes*, but the species is doubtful. The barbel may have been *B. kolus*.

Since our journey, the mountain has been again ascended by Mr. CANTLEY, the Government Botanist, who obtained a good collection of plants.